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Relative Earnings of Husbands and Wives in Urban China*

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Abstract

This paper studies the relative contribution of husbands and wives to the family income in the process of economic transition by using the Chinese Urban Household Survey data from 1988 to 1999. We find that, contrary to the experience of western countries, the share of wives' labor earnings in urban China tends to decline slightly over time and the share of husbands' labor earnings is stable. This implies that the role of urban Chinese husbands as the main financial supporters of their families becomes relatively more important during economic transition. We argue that this trend may have reflected the restoration of the functions of household production and labor market in the process of economic transition. This restoration allows households to allocate time, effort and human capital investment for each household member and for each household and market activity in a more efficient way. Our further empirical analysis suggests that having young children was the only observable factor that has accounted for the strengthening of the relative importance of husbands in contributing to family income in urban China.

1 Introduction

The role of women in the Chinese society has changed dramatically in the past century. In traditional China, wives took on all the housework and husbands were the major breadwinners. When the Communist Party founded the new China in 1949, it started to abolish many traditions. In particular, women, who were holding up half of the sky according to official slogans, were encouraged to enter the workforce. More importantly, starting from the early 1950s, the Communist Party began to establish a planned economy, which dramatically changed the behaviors of households and firms. The state essentially did not allow unemployment or people to stay out of the labor market, and assigned a job to almost all urban laborers. Moreover, the function of families such as childcare was socialized in such a way that individual families could not even make many decisions on family activities. Firms were also under central planning, and had an egalitarian pay system that rewarded neither human capital nor work effort.

The Chinese society has been undergoing further change since the transition from a planned economy to a market economy started in the late 1970s. With the rapid development of the Chinese economy and in particular the labor market, there are more job opportunities for women. Not surprisingly, many believe that women are still holding up half of the economic sky by being important wage earners. However, others do not agree. Some scholars argue that economic transition seems to hurt women more than men in terms of labor market opportunities. As a result, the role of men as a wage earner may have become more important during the transition process. Anecdotal evidence suggests that there is a trend that women are returning to the home, as was the case in traditional

Chinese society. Despite this debate, little is known about how the roles of husbands and wives in wage earning have evolved in the transition process in China.

The objective of this paper is to analyze the changes in the role of husbands and wives as financial supporters of their families in urban China during economic transition. We employ very rich urban survey data covering six provinces for the period of 1988-1999. These data not only allow us to examine how the role of husbands and wives in contributing to family income has evolved over time, but also allow us to examine factors that affect this evolution.

We argue that the contributions of wives to family income may have become less important during the process of economic transition from the planned regime to the market regime in China. In the planned regime, the sexual division of labor as asserted by Becker (1981 and 1985) may not be obvious, because households could not freely allocate their time and effort and because effort and human capital were not rewarded. Thus, as a result of economic planning, women may have worked longer in the market than they would in a well-functioning market economy. According to a family survey conducted in 1982, 81 percent of Chinese urban women worked outside, and the percentage was only slightly lower than that of men (Tsui, 1989). Economic transition in China is a process of restoring the labor market and household production roles, as those assumed by Becker (1981, 1985), and as a result, women may do less market work and are paid less.

Our empirical work generates some interesting findings that support the transition argument. First, we find that although a lot of wives work in the labor market in urban China, husbands contribute more to the family income than their wives for the whole sample period. Moreover, the

husband-wife gap in contribution increases over time in the process of economic transition. Second, we also find that the monetary contribution of wives to their families falls and that of husbands increases with the number of young children. These findings seem to suggest that having young children has become an important factor that makes husbands contribute more to family income and wives contribute less, as asserted by Becker (1981, 1985). Third, we find that other factors either have no effect on the gender gap or tend to reduce the gap. Moreover, there is still a large and rising gender gap that cannot be explained by the different returns to observable individual or household attributes. Finally, we find that although there is a husband-wife gap in labor force participation, it is not a main reason for the large and rising husband-wife income gap. In other words, both the wage gap and the gap in work hours may have also contributed to the income gap.

The remainder of the paper is organized as follows. The following section briefly reviews the literature on the relative role of wives and husbands in contributing to family income and derives our hypotheses. Section 3 describes the data. Section 4 reports the empirical results. Section 5 concludes.

2 Literature and Hypotheses

Becker (1973, 1974, 1981, 1985) was the pioneer in investigating how a family allocates the time and effort of each family member in household and market activities so as to maximize the family's well-being. The household maximization will result in a larger contribution of family income by men than women because men work longer and harder in the market, and invest more in market-oriented human capital. According to Becker (1981), each family member allocates his/her time between

household work and market work according to his/her comparative advantage. For biological reasons, women are committed to bearing and feeding children, and thus have a comparative advantage in the production and care of children. When women stay at home caring for children, they could also easily do other housework, which means that they also have a comparative advantage in this area. Thus, the biological difference between women and men will result in the sexual division of labor in families: women spend more time working in the household, while men spend more time working in the market sector. Therefore, one would expect that the contribution of women to family income is smaller than that of men.

The sexual division of labor is reinforced by the investment in specific human capital and the allocation of effort by family members for each activity (Becker, 1981, 1985). Because women spend more time in household production, they will invest more in acquiring the human capital for household production. In contrast, men will invest more in acquiring the human capital for market work. Because of the difference in human capital, men will be paid more than women per hour of market work. Becker (1985) also argues that a person also allocates his/her effort across all household and market activities. Women, who conduct effort-intensive household work such as childcare, would exert less effort in market work, and thus be paid less for an hour of market work than men even if they have the same human capital and work hours as men.

The model can be used to analyze the relative role of the husband and wife in contributing to family income during the process of economic transition in China. China may be a very special case for analysis. As a developing country, we should expect the role of a woman in contributing to family

income to become more important in the process of development, in which the effort intensity of household work decreases with the improvement of home production technology. However, as a transition economy, which is moving from a planned regime to a market regime, the role of women in China in contributing to family income may also be marginalized in the process of transition.

A number of key assumptions in the models of Becker (1981, 1985) do not hold in a planned regime. First, households cannot freely allocate their time in a planned economy. In the planned regime, all urban laborers were encouraged to enter employment and the majority of them were assigned a job by the state. The state essentially did not allow unemployment or people to stay out of the labor market. Moreover, the function of families was socialized in such a way that individual families could not make many decisions on family production. For example, after having a baby, an urban woman was given 56 days maternal leave, which was uniform nationally. After the leave, she had to go back to work, and the baby could automatically enter a state-owned kindergarten without any charges. Thus, essentially, women could not choose to have more household production, such as caring for young children, even if they wanted to. This means that the market work time for women and men did not differ much, and women may have spent more time in market work than they really would have preferred had they been part of a well-functioning market economy.

Second, the pay system was egalitarian in the planned regime, with the wage rates for people of different professions, educations and sexes determined by the central planner without much variation. This means that neither the human capital nor the work effort was rewarded in the planned regime. Because of this, both men and women did not have incentives to invest in human capital for market

work or to exert effort in market work. As a result, the reinforcing effect of the sexual division of labor as emphasized by Becker (1981, 1985) was not important during the planned regime.

Economic transition in China is a process of restoring the labor market and household production roles. Gradually, people have been allowed to choose not to work, to be unemployed, and wages rates are determined by the market, which reflects both the human capital and effort levels of individuals. In other words, economic transition has removed many constraints to families on their household and labor decisions, and households can make better allocation of time, human capital investment, and work effort for each member as modeled by Becker (1981, 1985). This means that the biological difference between women and men will result in women allocating more time in household production and less in market work, and therefore women contributing less than men in family income. Moreover, the restoration of the pay for human capital and effort market mechanism will restore the reinforcing effect of this sexual division of labor. This leads to our first hypothesis.

Hypothesis 1: The contribution of women to family income may decrease in the process of transition.

Becker's model can also be used to analyze factors that could affect the division of labor and thus the contribution of husbands and wives in family income. In this paper, we focus on three factors, young children, non-labor income, and adult co-residents. First, the increase in the number of young children would increase the needed housework time as well as the effort of women and thus reduce their time and effort for market work. Therefore, children should exert an unambiguously negative effect on

the income contribution of women.

Second, non-labor income may also affect the relative income contributions of husbands and wives. Assuming that leisure is a normal good, a rise in family non-labor income would induce husbands and wives to spend more time and effort on leisure activities and less on market activities. As a result of this income effect, market work time, effort and wage rate of both husbands and wives would be lowered. The magnitudes of the reductions in income contribution of husbands and wives resulting from the increase in family non-labor income would depend on the sizes of income effects. Thus, whether the relative income contribution of women increases or decreases with non-labor income is a purely empirical question.

Finally, the existence of non-parental adult co-residents may also affect the relative contribution of husbands and wives. On one hand, since adult co-residents generally provide financial support to the families, they have the same effect as non-labor income. On the other hand, additional non-parental adults increase the demand for household production. This affects the incentives to supply household consumption and may alter the incentives for specialization. More specifically, the number of adult co-residents may be correlated with an increase or decrease of the household work burden of wives and a depression or increase of their market work time and effort.[1] Again, the effect of non-parental adult co-residents on the relative income contribution of husbands and wives is a purely empirical question. We summarize the effects of children, non-labor income and non-parental co-resident adults in

1 Rosenbaum and Gilbertson (1995) find that the labor force participation of wives decreases significantly for those households with a great increase in the number of co-resident adults.

Hypothesis 2.

Hypothesis 2: The number of young children tends to reduce the wife's contribution to family income; non-labor income and the number of adult co-residents may also affect the wife's contribution to family income, but the signs of these effects are ambiguous.

3 Data

The data used in this paper come from the Urban Household Survey of China from 1988 to 1999 conducted by the Urban Socio-Economic Survey Organization of the State Statistical Bureau of China. The samples were randomly drawn from urban households in six regions that cover a considerable number of urban areas, including those in Beijing, Liaoning, Zhejiang, Guangdong, Sichuan and Shaanxi. The survey had a random sample for each year, and thus we have 12 years of repeated cross-sectional data rather than panel data. The survey includes detailed information on income and demographic characteristics, which we draw on to analyze the role of husbands and wives in their contributions to family income.

In this paper, we only use a sample of those families in which there are both husbands and wives. As a result, single families, single-parent families and widow families are excluded. On top of this, those families in which either or both spouses were self-employed are also excluded in the analysis since the earning pattern of self-employed persons is different from that of wage earners. Table A1 summarizes all variables.

One issue of concern is how to deal with people who are retired in our sample. Table A2 gives the distribution of non-participants by reasons. Retirement is indeed the major reason for both men and women to withdraw from the labor force. The table shows that almost all men who were out of the labor force were due to retirement. For women, about 80 percent of the non-participants are retirees, and the rest stayed out of the labor market because they chose to do housework or for some other reasons. To avoid the compounding problem of retirement, we restrict our regression analysis to a sample with both husbands and wives being non-retirees.

4 Empirical Analyses

4.1 The Changes in Relative Income Contribution of Husbands and Wives

We follow Machin and Waldfogel (1994) and use the share of the labor income of an individual in total family income to measure the income contribution of each family member. More specifically, this index is defined as follows:

Share of individual's labor income in total family income

= Annual labor income of an individual / Total annual family income

We start our analysis of the evolution of the relative importance of husbands and wives in contributing to family income in urban China during economic transition by exploring this simple index.

Some preliminary analysis of the data seems to support Hypothesis 1. Table 1 reveals that the share of husbands' labor income is generally greater than that of wives' over the 12-year horizon. Although the husbands' share is largely stable over the period (around 0.4), the wives' share has fallen

slightly from 0.306 in 1988 to 0.272 in 1999, which leads to a widening of the gap between the husbands' share and the wives' share from 0.093 in 1988 to 0.129 in 1999. This trend suggests that the importance of Chinese urban wives as financial supporters of families has declined slightly during economic transition.

Following Harkness et al. (1997), we explore the evolution of the income structure by examining the distribution of these shares over selected years, i.e., 1988, 1994 and 1999. Figure 1 shows, not surprisingly, that the fraction of wives who have no monetary contribution to families (0 shares) is remarkably greater than the fraction of husbands for all three years. Interestingly, the fraction of wives with no contribution increases from 0.138 in 1988 to 0.235 in 1999 whereas the fraction of husbands with no contribution increases from 0.08 in 1988 to 0.156 in 1999.[2] These figures reflect that the increase in the fraction of wives is slightly greater than that of husbands (0.097 versus 0.076). This finding regarding the lower end of the distributions again shows the shrinkage of the relative importance of wives in contributing to their family income. The same story can be told when we move to the upper end of the distributions. The fraction of wives who contribute more than 70 percent of total family income increases only by 0.04 from 1988 to 1999, but the fraction of husbands who contribute more than 70 percent increases by a large 0.128 for the same period. These results again support Hypothesis 1.

We further divide the sample into ten decile groups according to the total income level of the families, with the first decile constituted by the lowest 10 percent and the tenth decile constituted by the

2 For additional information, there are 5.64 percent couples in which both husbands and wives do not contribute economically to their families in 1988. The percentage increases to 8.52 percent in 1994 and 11.04 percent in 1999.

highest 10 percent. Analysis with deciles reported in Table 2 shows that the labor income share differential between husbands and wives generally increases over time for all but the richest three deciles. Moreover, the differential decreases when we move down from the poorest decile to the richest decile, for all 12 years.[3]

4.2 Regressions

The above simple descriptive analysis shows a widening gap between husbands and wives in their share of labor income. We will turn to regressions to examine whether such a gap still exists after controlling for other covariates. The regression equation is specified as follows:

$$C_t = \beta_{0t} + \beta_{1t} \text{ Husband Dummy} + \sum \beta_{it} \text{Control Variable}_{it} + \varepsilon_t, \qquad (1)$$

where the dependent variable C_t represents the percentage of the labor earnings of either the husband or wife in total family income at time t, βs are coefficients to be estimated, and ε is the disturbance term. The husband dummy is a dummy variable which equals one for husbands and zero for wives. The estimated β_{1t} will show how much more or less husbands contribute to the family relatively to their wives. The control variables that are used include age, age squared, years of education, the number of children, the number of adult co-residents, family non-labor income and provincial dummies.

The regression results confirm Hypothesis 1 and the earlier findings that the husband is more important than the wife in contributing to family income, and the husband-wife gap is widening over

3 This could reflect the age effect, since older people are more likely to be in the higher deciles (older people earn more and have more wage earners in the household, such as children).

years. As shown in Table 3, the husband dummy is positive and significant at the one percent level for all years. Generally speaking, the coefficient on the husband dummy increases over the sample period. In 1988, husbands contribute 8.5 percent more than their wives to family income, but this number increases to 12.5 percent in 1999.

To test whether the rise of the husband-wife gap over time is statistically significant, we run a regression to the pooled sample of all years. We add year as a variable to control for year trend, with the assumption that the change of the income share is linear over time. We also include the interaction of year and the husband dummy to test whether there is a significant trend of the husband-wife gap over time. The results in the last column of Table 3 show that the husband dummy is still positive and significant, with the magnitude of 7.8. The interaction term is indeed positive and significant, with the magnitude of 0.5, suggesting that the husband-wife gap increases around half a percentage point a year.

In summary, the above analysis shows that husbands contribute increasingly more to the family income than their wives. These results seem to support our view that economic transition has restored the conditions assumed by Becker. In particular, when these conditions hold, wives may choose to do more household production and less market work, or wives may be paid less than their husbands in the market. In the next subsection, we will examine the factors that may have contributed to the husband-wife gap.

4.3 Why Has the Husband-Wife Gap Widened Over Time?

The finding that the husband-wife gap in income shares widens over time raises an interesting

question: Why has it happened? To trace the reasons for the changes, the econometric model is modified as follows:

$$C_t = \theta_{0_t} + \theta_{1t} Husband\ Dummy + \sum \theta_{it}\ Control\ Variable_i + \sum \theta_{jt}\ Control\ Variable_j\ *\ Husband\ Dummy + \varepsilon_t, \quad (2)$$

where we interact all control variables, i.e., age, age squared, education, the number of children, the number of co-residents and non-labor income, indexed by j, with the husband dummy. These interaction terms will pick up any additional effect the control variables have on the husband's relative income on top of the effect they have on the wife's relative income. In other words, these interaction terms will help to explain why there is a husband-wife gap in the relative income, and why this gap is widening over time.

Regression results reported in Table 4 show that when we allow the effect of all variables to differ between the husbands and wives, there is an even larger unexplained husband-wife gap. Note that the coefficients on the husband dummy become much larger compared to those in Table 3. Since the husband dummy measures the husband-wife gap that cannot be explained by observable variables, it means that controlling for the effect of other variables, there is a larger unexplained gender gap. Moreover, the interaction term year*husband also becomes larger, suggesting that the unexplained part of the gap is also rising faster than that is estimated in the previous table.

The interaction terms of the husband dummy with other variables have both individual and joint explanatory power in the regressions. To make sure that these interaction terms have explaining power, we test their joint significance. The test results show that they are jointly significant at the one percent

level. As for individual interaction terms, note first that increasing human capital helps to reduce the husband-wife gap. The variable education*husband has a negative coefficient and is significant at the one percent level in all years, suggesting that education increases the wives' income ratio by a larger amount than increasing the husband's income ratio.

Consistent with Hypothesis 2, Table 4 shows that the number of young (preschool, school-age and adolescent) children in general widens the husband-wife income gap. Note that the coefficients on the children variables are almost all negative and are significant in most cases. Since we also have the interactions of the husband dummy with the children variables, these children variables pick up the effect for wives (husband dummy = 0). This implies that having more young children tends to reduce the income share of wives.

Another interesting result from Table 4 is that while young children tend to reduce the wife's income share, they increase the husband's income share.[4] Take the effect of the preschool children in 1988 as an example. The coefficient on the number of preschool children itself is negative and significant at the five percent level. The magnitude of -1.988 means that one more preschool child in 1988 reduces the income share of the wife (the base group) by 1.988 percent. However, since the interaction term is positive, the total effect of the preschool child on the husband's income share is a

4 One might be concerned that samples from later years are more likely to be affected by the one-child policy, and thus may have a smaller variation in these children variables. However, even if they are subject to the one-child policy, they still differ in the timing of having the first child, and thus in the number of children in each age group. The variation of the children variables can be seen from Table A1. Note that although the standard deviation for the children variables, e.g., the number of pre-school children, decreases with time, so does the mean. Moreover, the ratio of the standard deviation to the mean, a normalized measure of the variation for a variable, does not decrease with time. For example, the ratio for the number of pre-school children is 2.1 in 1988 (0.39/0.185), but it is as large as 3.5 for 1999 (0.26/0.074). The same pattern is true for the other three children variables.

positive 2.691 percent in 1988.[5]

Adult children living with parents may also affect the income share of the wife and husband. To a certain extent, adult children have earning power and are able to provide financial support to their families, and thus their appearance reduces the income share of both wives and husbands. Moreover, income-making adult children may reduce the incentives of parents to work more, and thus reduce their labor supply and incomes. Regressions results indeed show that the presence of adult children (18 years old or above) reduces the income share of both wives and husbands, and it reduces that of both wives and husbands similarly.

Our analysis with adult co-residents shows that co-residents tend to reduce the income share of both husbands and wives, and it reduces that of the husbands more in certain years. The co-resident variable has a negative and significant coefficient in all years, meaning that having one more co-resident reduces the income share of both husbands and wives. The interaction terms are mostly negative and are significant only for later years. Therefore, co-resident adults have helped to reduce the husband-wife income gap in later years.

Finally, we test whether non-labor income (including those incomes such as interest income, dividend income and income from supporters, gifts, boarders and selling property) affects the husband-wife income gap. The non-labor income variable should measure the income effect on the demand for leisure for husbands and wives. The coefficients on non-labor income are negative and

5 This is obtained by adding up the coefficient of the number of preschool children and the coefficient of the interaction term of that variable in Table 4. For example, in this case -1.988 plus 4.679 results in 2.691. A similar calculation method applies to the other variables with husband interaction terms. This result is partially consistent with the finding using US data (see e.g., Cain, 1966; Waite, 1980; Sorensen, 1983), which shows that women's labor force participation is negatively related to the presence of preschool children.

significant at the one percent level in all years and the coefficients on the interaction terms are negative and significant for most years. This suggests that, consistent with theoretical predictions in the literature, leisure should be a normal good to both husbands and wives. Furthermore, the negative interaction term means that the positive income effect on the leisure of husbands is larger than that of their wives.

As a caveat, we should be careful in interpreting the results regarding the number of children, co-residing adults and non-labor income. Generally speaking, these variables may be treated as exogenous in our context. For example, the number of children could be treated as exogenous to the extent that it is predetermined relative to the allocation of labor or time. Non-labor income is also generally treated as exogenous to labor decisions in the literature. However, as is well known, these variables are related to household decisions that are jointly determined with household time allocation as well as the labor income of each individual. Thus, all these variables could be endogenous. Given the limitations of the data, dealing with the endogeneity problem is beyond our scope.

4.4 Robustness Tests

In the above analysis, we have restricted to a sample with both the husband and wife being non-retirees. Although retirement is a major reason for non-participation, there are other reasons. As shown by Table A2, a significant number of women chose to stay home for reasons other than retirement, but very few men did so. In other words, there seems to be a participation gap other than the reason of retirement. To test how non-participation (other than that caused by retirement) has affected our results,

we go a step further, and remove those households with either husband or wife not participating in the labor force (non-retirees are also removed).

We find that although participation may have contributed to the husband-wife earnings gap, it may not be the main reason for the gap. The top panel of Table 5 reports the estimated coefficients on the husband dummy as well as the year*husband interaction of regressions with the same specification as those in Table 3, but with a smaller sample. The estimated coefficients on both the husband dummy and the year*husband interaction are slightly smaller than those in Table 3, suggesting that the participation gap may have contributed to the earnings gap. However, there remains a large and increasing gender earnings gap even to this more restricted sample of participants. When we use the specification of Table 4 (with interactions) to the sample of participants, we still find a large and increasing gender earnings gap (the lower panel of Table 5). This means that participation itself is not a main reason for the husband-wife income gap. The gap in this restricted sample is either due to the gap in working hours or due to the wage gap.

5 Conclusions

In this paper, we examine the relative importance of husbands and wives as financial supporters of their families in urban China during the transition period from 1988 to 1999, by using data from the Urban Household Survey of China. We find that the husband-wife gap in contributing to family income increases over time in the process of economic transition. We argue that this is a result of economic transition, which has restored the labor market and household production.

We further explore whether factors of household production and the labor market affect the relative contribution of wives in a way predicted by Becker's model, and find supporting evidence. In particular, we find that the relative monetary contribution of wives falls and that of husbands increases with the number of young children. These findings seem to suggest that having young children is becoming an important factor that makes husbands contribute more to family income and wives contribute less. Third, we find that having other adult family members does not change the relative role of husbands and wives in contribution, but non-labor income seems to favor men. Finally, we find that although the husband-wife gap in labor force participation widens over time, it cannot fully explain the husband-wife income gap.

With reference to the experience of western countries, one might have expected that wives in China have been gradually holding up the half of the sky during the development process. However, contrary to this expectation, this paper finds that the percentage share of wives' labor earning tends to decline slightly over time. Wives to a certain extent have not swum upward financially during economic transition. Rather, the traditional division of labor between husbands and wives tends to be strengthening slightly over time in urban China. However, this may not be a bad thing in terms of efficiency of the economy. The restrictions in the planned era, which were against intra-household specializations, have been removed during economic transition. Thus, households can make better choices regarding their household and labor market inputs and effort, as has been asserted by Becker (1981 and 1985). In this sense, reforms have restored efficiency.

References

Becker, Gary S. (1973). "A Theory of Marriage: Part 1." *Journal of Political Economy* 81, 813-46.

Becker, Gary S. (1974). "A Theory of Marriage: Part 2." *Journal of Political Economy* 82, s11-s26.

Becker, Gary S. (1981). *A Treatise on the Family*. Cambridge: Harvard University Press.

Becker, Gary S. (1985). "Human Capital, Effort, and the Sexual Division of Labor." *Journal of Labor Economic* 3(1), S33-58.

Cain, Glenn.(1966). "Married Women in the Labor Force: An Economic Analysis." Chicago: University of Chicago Press.

Harkness, Susan, Machin, Stephen. and Waldfoget, Jane. (1997). "Evaluating the Pin Money Hypothesis: The Relationship between Women's Labor Market Activity, Family Income and Poverty in Britain." *Journal of Population Economics* 10, 137-58.

Machin, Stephen. and Waldfogel, Jane (1994). "The Decline of the Male Breadwinner: Changing Shares of Husbands' and Wives' Earnings in Family Income." Suntory-Toyota International Centre for Economics and Related Disciplines, WSP/103.

Rosenbaum, Emily, and Gilbertson, Greta (1995). "Mothers' Labor Participation in New York City: A Reappraisal of the Influence of Household Extension." *Journal of Marriage and the Family* 57, 243-249.

Sorensen, Annamette (1983). "Women's employment patterns after marriage." *Journal of Marriage and the Family* 45, 311-321.

Tsui, Ming (1989). "Changes in China's Urban Family Structure." *Journal of Marriage and the Family* 51, 737-747.

Waite, Linda J. (1980). "Working Wives and the Family Cycle." *American Journal of Sociology* 86, 272-294.

Table 1: Average Share of Each Income Source in Total Annual Family Income in Urban China, 1988-1999

Year	Husband	Wife	Husband-wife ratio	Adult children	Other co-residing adults	Non-labor income
	A	B	C=A-B	D	E	F
1988	0.399	0.306	0.093	0.048	0.002	0.242
1989	0.388	0.294	0.094	0.053	0.001	0.262
1990	0.390	0.295	0.096	0.052	0.002	0.260
1991	0.395	0.290	0.105	0.051	0.002	0.260
1992	0.424	0.321	0.103	0.063	0.002	0.186
1993	0.425	0.314	0.112	0.065	0.001	0.193
1994	0.421	0.297	0.125	0.064	0.002	0.216
1995	0.427	0.307	0.120	0.064	0.002	0.200
1996	0.420	0.299	0.122	0.061	0.001	0.217
1997	0.418	0.291	0.127	0.060	0.001	0.229
1998	0.409	0.281	0.128	0.059	0.003	0.247
1999	0.401	0.272	0.129	0.059	0.002	0.265

Table 2: Average Share of Husbands' and Wives' Annual Labor Income in Total Annual Family Income in Urban China, by Family Income Decile Groups, 1988-1999 (to be continued)

Panel A: Mean of the share of husbands' labor income to family income in each decile group

Family income decile groups	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	0.360	0.326	0.355	0.383	0.452	0.453	0.418	0.422	0.445	0.476	0.469	0.462
2	0.405	0.395	0.396	0.416	0.434	0.442	0.444	0.444	0.446	0.452	0.429	0.430
3	0.425	0.418	0.402	0.413	0.451	0.433	0.456	0.446	0.435	0.450	0.440	0.381
4	0.423	0.417	0.418	0.430	0.460	0.432	0.407	0.450	0.411	0.421	0.420	0.427
5	0.420	0.412	0.409	0.411	0.456	0.428	0.438	0.424	0.424	0.409	0.402	0.407
6	0.411	0.415	0.417	0.396	0.433	0.434	0.424	0.416	0.411	0.428	0.400	0.389
7	0.406	0.399	0.403	0.396	0.404	0.433	0.422	0.436	0.419	0.403	0.405	0.390
8	0.392	0.384	0.382	0.375	0.397	0.409	0.417	0.430	0.419	0.383	0.394	0.374
9	0.379	0.353	0.375	0.368	0.382	0.396	0.403	0.415	0.392	0.375	0.357	0.382
10	0.367	0.361	0.345	0.364	0.371	0.394	0.385	0.385	0.404	0.383	0.378	0.369

Panel B: Mean of the share of wives' labor income to family income in each decile group

Family income decile groups	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	0.199	0.201	0.190	0.225	0.278	0.279	0.238	0.244	0.259	0.255	0.233	0.218
2	0.323	0.287	0.293	0.288	0.325	0.310	0.284	0.307	0.287	0.303	0.267	0.263
3	0.330	0.319	0.323	0.304	0.348	0.321	0.319	0.333	0.329	0.301	0.285	0.258
4	0.345	0.329	0.335	0.313	0.361	0.336	0.311	0.338	0.304	0.295	0.293	0.286
5	0.333	0.347	0.311	0.319	0.358	0.345	0.312	0.321	0.295	0.309	0.285	0.268
6	0.327	0.321	0.338	0.316	0.351	0.330	0.320	0.316	0.314	0.304	0.299	0.284
7	0.338	0.308	0.325	0.288	0.331	0.323	0.296	0.334	0.307	0.281	0.285	0.293
8	0.305	0.288	0.292	0.291	0.297	0.315	0.319	0.303	0.319	0.295	0.295	0.287
9	0.287	0.275	0.291	0.282	0.294	0.286	0.287	0.293	0.292	0.291	0.279	0.289
10	0.276	0.269	0.247	0.276	0.272	0.292	0.280	0.279	0.283	0.272	0.292	0.278

Panel C: Differential in the mean share of labor income (Husband's share - Wife's share)

Family income decile groups	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	0.161	0.124	0.165	0.159	0.174	0.174	0.180	0.178	0.186	0.221	0.235	0.243
2	0.083	0.108	0.103	0.128	0.108	0.132	0.160	0.136	0.158	0.149	0.162	0.167
3	0.095	0.099	0.079	0.109	0.103	0.111	0.137	0.114	0.106	0.149	0.155	0.123
4	0.078	0.087	0.083	0.117	0.099	0.096	0.097	0.112	0.107	0.126	0.127	0.141
5	0.087	0.065	0.098	0.092	0.097	0.083	0.126	0.103	0.129	0.100	0.117	0.139
6	0.084	0.093	0.079	0.080	0.082	0.104	0.103	0.100	0.096	0.124	0.101	0.105
7	0.068	0.092	0.078	0.108	0.073	0.110	0.126	0.102	0.112	0.122	0.120	0.096
8	0.087	0.097	0.090	0.084	0.100	0.094	0.098	0.127	0.101	0.088	0.099	0.088
9	0.092	0.078	0.084	0.086	0.089	0.110	0.116	0.122	0.100	0.084	0.078	0.093
10	0.091	0.092	0.098	0.087	0.099	0.102	0.105	0.106	0.121	0.111	0.086	0.091

Table 2: Average Share of Husbands' and Wives' Annual Labor Income in Total Annual Family Income in Urban China, by Family Income Decile Groups, 1988-1999 (second part)

Panel D: Mean of the share of adult children's labor income to family income in each decile group

Family income decile groups	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	0.017	0.019	0.021	0.010	0.006	0.009	0.018	0.016	0.013	0.021	0.017	0.019
2	0.019	0.010	0.017	0.008	0.013	0.016	0.019	0.018	0.019	0.018	0.024	0.026
3	0.012	0.015	0.015	0.014	0.021	0.023	0.025	0.029	0.030	0.022	0.030	0.031
4	0.025	0.026	0.021	0.024	0.020	0.036	0.040	0.029	0.031	0.042	0.035	0.036
5	0.032	0.025	0.028	0.021	0.045	0.038	0.041	0.053	0.051	0.036	0.049	0.048
6	0.028	0.031	0.027	0.034	0.044	0.069	0.065	0.064	0.061	0.047	0.049	0.054
7	0.044	0.058	0.043	0.055	0.076	0.076	0.074	0.066	0.065	0.064	0.064	0.060
8	0.077	0.084	0.087	0.090	0.114	0.112	0.073	0.089	0.069	0.094	0.078	0.093
9	0.108	0.128	0.109	0.120	0.138	0.129	0.125	0.120	0.128	0.106	0.120	0.097
10	0.121	0.128	0.155	0.132	0.154	0.144	0.156	0.159	0.142	0.151	0.122	0.127

Panel E: Mean of the share of other co-residing adults' labor income to family income in each decile group

Family income decile groups	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	0.000	0.000	0.000	0.000	0.000	0.000	0.001	0.001	0.000	0.001	0.002	0.003
2	0.001	0.000	0.000	0.000	0.000	0.002	0.002	0.001	0.001	0.001	0.004	0.002
3	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.001	0.003	0.003	0.000	0.001
4	0.000	0.000	0.002	0.000	0.001	0.001	0.003	0.002	0.002	0.000	0.004	0.000
5	0.001	0.000	0.000	0.000	0.002	0.001	0.000	0.000	0.000	0.000	0.001	0.002
6	0.001	0.001	0.000	0.003	0.002	0.001	0.000	0.001	0.002	0.000	0.002	0.002
7	0.001	0.001	0.002	0.002	0.003	0.002	0.003	0.002	0.000	0.003	0.003	0.001
8	0.003	0.001	0.002	0.006	0.004	0.002	0.001	0.003	0.002	0.004	0.003	0.003
9	0.008	0.007	0.004	0.005	0.004	0.002	0.004	0.001	0.001	0.000	0.003	0.001
10	0.004	0.001	0.004	0.004	0.006	0.003	0.003	0.004	0.002	0.002	0.004	0.002

Panel F: Mean of the share of non-labor income to family income in each decile group

Family income decile groups	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
1	0.424	0.454	0.433	0.382	0.263	0.259	0.326	0.317	0.281	0.247	0.279	0.297
2	0.251	0.307	0.293	0.287	0.227	0.228	0.250	0.230	0.247	0.225	0.276	0.277
3	0.233	0.247	0.257	0.268	0.179	0.222	0.199	0.191	0.202	0.223	0.244	0.328
4	0.206	0.227	0.224	0.231	0.157	0.195	0.239	0.180	0.252	0.242	0.246	0.252
5	0.213	0.216	0.252	0.247	0.137	0.187	0.208	0.200	0.228	0.243	0.264	0.275
6	0.229	0.230	0.216	0.249	0.165	0.165	0.188	0.203	0.211	0.220	0.249	0.270
7	0.207	0.231	0.226	0.256	0.182	0.165	0.205	0.160	0.209	0.246	0.243	0.255
8	0.220	0.240	0.235	0.237	0.183	0.161	0.188	0.172	0.188	0.225	0.229	0.243
9	0.212	0.234	0.219	0.225	0.178	0.185	0.181	0.171	0.186	0.226	0.241	0.231
10	0.226	0.238	0.246	0.222	0.188	0.167	0.175	0.172	0.168	0.192	0.203	0.225

Table 3: OLS Regressions Examining the Share of Labor Income of Husbands versus Wives in Total Family Income in Urban China, 1988-1999

	Dependent variable: percentage of one's labor earnings in total family income												
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	All
Husband	8.451***	8.238***	8.345***	9.247***	9.225***	10.331***	11.681***	10.961***	11.503***	12.181***	11.368***	12.548***	7.784***
	(27.50)	(25.33)	(28.11)	(28.89)	(30.40)	(29.50)	(30.80)	(27.95)	(28.12)	(27.54)	(24.28)	(24.48)	(42.95)
Age	1.575***	1.532***	1.145***	1.302***	1.673***	1.368***	1.121***	1.191***	1.251***	1.193***	1.421***	1.486***	1.683***
	(7.84)	(7.44)	(5.48)	(6.08)	(7.38)	(5.76)	(4.76)	(4.39)	(4.68)	(4.67)	(5.51)	(5.42)	(23.92)
Age squared	-0.019***	-0.019***	-0.014***	-0.016***	-0.020***	-0.017***	-0.013***	-0.014***	-0.015***	-0.014***	-0.015***	-0.017***	-0.020***
	(8.23)	(7.70)	(5.57)	(6.31)	(7.57)	(6.07)	(4.88)	(4.46)	(4.81)	(4.65)	(5.27)	(5.50)	(24.62)
Education	0.649***	0.672***	0.635***	0.687***	0.571***	0.608***	0.720***	0.737***	0.761***	0.813***	0.929***	1.206***	0.725***
	(12.16)	(11.88)	(11.54)	(12.27)	(10.93)	(10.05)	(11.30)	(10.93)	(10.57)	(10.74)	(11.83)	(14.18)	(38.58)
No. of children													
Preschool	0.414	-1.087*	0.096	-1.149	-3.750***	-2.572***	-0.520	-0.060	-0.811	-0.063	1.084	-1.157	-1.194***
	(0.64)	(1.80)	(0.16)	(1.60)	(5.78)	(2.93)	(0.60)	(0.07)	(0.81)	(0.06)	(1.05)	(1.05)	(5.27)
School age	0.069	-0.707*	-0.043	-0.430	-4.253***	-2.038***	-0.630	-0.170	-0.764	-1.242*	-0.940	-1.951**	-1.393***
	(0.19)	(1.76)	(0.11)	(0.93)	(6.96)	(3.31)	(1.04)	(0.28)	(1.08)	(1.75)	(1.27)	(2.35)	(9.97)
Adolescent	-1.055***	-1.058***	-0.825**	-1.050**	-2.073***	-2.208***	-0.754	-0.698	-0.822	-0.934	-0.733	-1.088	-1.809***
	(2.73)	(2.68)	(2.16)	(2.38)	(4.10)	(3.65)	(1.27)	(1.10)	(1.18)	(1.26)	(0.93)	(1.16)	(13.79)
Adult	-4.238***	-4.596***	-4.488***	-5.099***	-6.860***	-7.459***	-6.933***	-6.530***	-6.535***	-6.997***	-6.433***	-6.567***	-6.093***
	(12.06)	(12.93)	(14.25)	(14.29)	(19.26)	(18.13)	(15.99)	(13.82)	(13.46)	(14.03)	(10.89)	(9.11)	(51.34)
No. of adult co-residents	-2.325***	-1.957***	-2.399***	-2.396***	-4.721***	-4.135***	-4.112***	-4.192***	-3.876***	-4.510***	-4.945***	-4.852***	-3.119***
	(6.59)	(5.21)	(5.73)	(6.37)	(13.65)	(9.15)	(9.11)	(9.31)	(8.07)	(9.83)	(9.94)	(8.25)	(27.59)
Non-labor Income	-0.005***	-0.003***	-0.003***	-0.002***	-0.009***	-0.007***	-0.005***	-0.004***	-0.004***	-0.004***	-0.004***	-0.003***	-0.003***
	(13.42)	(17.08)	(8.37)	(6.30)	(12.54)	(15.66)	(11.77)	(12.65)	(13.17)	(18.08)	(20.41)	(11.93)	(27.55)
Year													-0.145***
													(6.20)
Year*husband													0.472***
													(14.49)
Observations	5006	4518	5220	5352	6448	5746	5626	5662	5546	5650	5482	5092	65348
R-squared	0.37	0.34	0.35	0.31	0.35	0.32	0.32	0.29	0.28	0.26	0.24	0.25	0.29

Robust t statistics in parentheses; * significant at 10%; ** significant at 5%; *** significant at 1%; All regressions include provincial dummies. All economic variables are derived using the 1988 price level.

Table 4: OLS Regressions Examining the Share of Labor Income of Husbands versus Wives in Total Family Income in Urban China, 1988-1999

	Dependent variable: percentage of one's labor earnings in total family income												
	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	All
Husband	25.832***	47.155***	33.772***	22.089**	29.763***	45.520***	57.382***	62.896***	62.948***	62.159***	68.534***	95.445***	40.182***
	(2.80)	(5.02)	(3.82)	(2.29)	(2.92)	(4.26)	(5.43)	(5.07)	(4.94)	(4.91)	(4.90)	(6.50)	(12.38)
Age	2.377***	2.881***	2.292***	2.110***	2.508***	2.491***	2.088***	2.238***	2.300***	2.318***	2.515***	2.712***	2.619***
	(9.94)	(9.91)	(8.80)	(7.54)	(8.50)	(7.90)	(6.65)	(6.09)	(6.19)	(5.85)	(5.76)	(5.58)	(25.99)
Age squared	-0.032***	-0.037***	-0.031***	-0.029***	-0.033***	-0.032***	-0.027***	-0.028***	-0.029***	-0.029***	-0.030***	-0.031***	-0.034***
	(11.53)	(10.77)	(9.97)	(8.72)	(9.47)	(8.71)	(7.25)	(6.41)	(6.59)	(6.18)	(5.60)	(5.25)	(27.92)
Education	1.104***	1.048***	1.174***	1.178***	1.130***	1.252***	1.385***	1.384***	1.347***	1.666***	1.884***	2.105***	1.360***
	(15.69)	(13.84)	(16.27)	(16.11)	(16.04)	(15.50)	(16.56)	(15.29)	(13.82)	(15.60)	(17.63)	(18.89)	(53.96)
No. of children													
Preschool	-1.988**	-2.217***	-2.491***	-4.249***	-5.215***	-3.345***	-1.632	0.233	-0.055	-2.425*	-1.059	-0.756	-2.262***
	(2.52)	(2.83)	(3.29)	(4.88)	(6.24)	(2.88)	(1.40)	(0.20)	(0.04)	(1.78)	(0.79)	(0.51)	(7.68)
School-age	-1.604***	-2.181***	-1.237**	-2.389***	-4.749***	-2.995***	-0.974	0.823	-0.678	-2.254**	-3.022***	-2.574**	-2.078***
	(3.65)	(4.24)	(2.46)	(4.02)	(6.12)	(3.73)	(1.22)	(0.99)	(0.69)	(2.43)	(3.09)	(2.24)	(11.25)
Adolescent	-1.787***	-2.167***	-2.282***	-2.070***	-2.746***	-3.175***	-1.448*	-0.281	-0.112	-1.722*	-1.735*	-2.214*	-2.072***
	(3.66)	(4.27)	(4.68)	(3.42)	(4.41)	(4.20)	(1.92)	(0.34)	(0.12)	(1.77)	(1.69)	(1.72)	(12.16)
Adult	-4.763***	-5.009***	-4.284***	-4.856***	-6.715***	-7.759***	-6.784***	-5.721***	-5.798***	-6.033***	-6.709***	-6.515***	-5.902***
	(11.07)	(11.84)	(11.43)	(11.23)	(15.16)	(15.93)	(12.28)	(9.58)	(8.98)	(9.17)	(9.02)	(7.37)	(39.82)
No. of adult co-residents	-2.524***	-1.696***	-2.500***	-2.927***	-5.040***	-4.531***	-2.613***	-3.300***	-2.428***	-3.862***	-3.746***	-3.130***	-3.130***
	(5.89)	(3.26)	(4.60)	(5.95)	(11.47)	(8.39)	(4.51)	(5.89)	(4.00)	(6.22)	(5.90)	(3.98)	(21.67)
Non-labor income	-0.003***	-0.002***	-0.002***	-0.002***	-0.007***	-0.005***	-0.004***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***	-0.003***
	(8.80)	(13.44)	(5.54)	(4.26)	(8.76)	(10.07)	(9.82)	(10.35)	(8.45)	(11.47)	(12.84)	(7.74)	(19.29)
Interactions with husband													
Age*husband	-0.922**	-1.914***	-1.280***	-0.868*	-0.965**	-1.493***	-1.476***	-1.726***	-1.744***	-1.840***	-1.779***	-2.508***	-1.305***
	(2.17)	(4.29)	(3.12)	(1.90)	(2.03)	(3.04)	(3.07)	(3.00)	(3.01)	(3.26)	(2.83)	(3.72)	(8.59)
Age squared*husband	0.016***	0.027***	0.021***	0.017***	0.017***	0.022***	0.021***	0.023***	0.024***	0.026***	0.023***	0.027***	0.020***
	(3.31)	(5.15)	(4.48)	(3.14)	(3.02)	(3.82)	(3.68)	(3.40)	(3.55)	(4.02)	(3.07)	(3.43)	(11.02)
Education*husband	-0.987***	-0.797***	-1.111***	-1.057***	-1.124***	-1.265***	-1.284***	-1.286***	-1.155***	-1.596***	-1.762***	-1.696***	-1.244***
	(9.84)	(7.35)	(11.12)	(10.18)	(11.24)	(11.00)	(10.67)	(9.98)	(8.38)	(10.77)	(11.51)	(10.23)	(34.42)
Preschool children*husband	4.679***	2.258*	5.325***	6.154***	3.475***	1.793	2.027	-0.741	-1.590	4.719**	3.822*	-1.157	2.273***
	(3.77)	(1.92)	(4.64)	(4.39)	(2.70)	(1.04)	(1.18)	(0.43)	(0.79)	(2.28)	(1.93)	(0.54)	(5.11)
School-age children*husband	2.836***	2.447***	1.673**	3.324***	0.523	1.368	0.059	-2.464**	-0.698	1.518	3.412**	0.780	0.981***
	(4.07)	(3.08)	(2.24)	(3.71)	(0.43)	(1.13)	(0.05)	(2.08)	(0.49)	(1.09)	(2.34)	(0.47)	(3.54)
Adolescent children*husband	1.045	1.831**	2.403***	1.709**	1.225	1.805	1.265	-1.022	-1.848	1.457	1.678	2.165	0.388
	(1.40)	(2.34)	(3.23)	(1.97)	(1.27)	(1.55)	(1.10)	(0.82)	(1.34)	(1.02)	(1.10)	(1.16)	(1.51)
Adult children*husband	0.961	0.706	-0.547	-0.535	-0.297	0.748	-0.228	-1.473	-1.354	-1.742*	0.900	0.131	-0.282
	(1.43)	(1.05)	(0.93)	(0.78)	(0.43)	(0.94)	(0.27)	(1.62)	(1.44)	(1.83)	(0.78)	(0.09)	(1.22)
Co-residents*husband	0.574	-0.231	0.291	1.140	0.614	0.845	-2.996***	-1.775**	-2.841***	-1.100	-2.304**	-3.391***	0.017
	(0.87)	(0.31)	(0.35)	(1.56)	(0.92)	(0.97)	(3.35)	(1.96)	(3.13)	(1.21)	(2.37)	(2.92)	(0.08)
Non-labor income*husband	-0.003***	-0.001***	-0.001	-0.001	-0.003**	-0.003***	-0.001	-0.001*	-0.002***	-0.002***	-0.001***	-0.001*	-0.001***
	(3.76)	(2.88)	(1.57)	(1.35)	(2.03)	(3.50)	(1.52)	(1.76)	(3.42)	(3.98)	(3.02)	(1.80)	(5.42)
Year													-0.228***
													(9.62)
Year*husband													0.608***
													(17.36)
Observations	5006	4518	5220	5352	6448	5746	5626	5662	5546	5650	5482	5092	65348
R-squared	0.40	0.37	0.39	0.35	0.38	0.35	0.34	0.31	0.30	0.28	0.26	0.26	0.31

Robust t statistics in parentheses; * significant at 10%; ** significant at 5%; *** significant at 1%; All regressions include provincial dummies. All economic variables are derived using the 1988 price level.

Table 5: OLS Estimates of the Gender Gap in Various Specifications (both husbands and wives are labor market participants; dependent variable: share of labor income)

	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	All
Specification same as Table 3 (no interactions)													
Husband	7.717***	7.431***	7.416***	8.107***	7.797***	9.027***	10.229***	9.813***	10.178***	10.856***	10.223***	11.485***	6.835***
	(26.32)	(24.21)	(26.56)	(27.11)	(27.35)	(27.09)	(28.10)	(25.95)	(25.68)	(25.05)	(22.13)	(22.71)	(39.72)
Year*husband													0.432***
													(13.69)
Specification same as Table 4 (with interactions)													
Husband	27.088***	53.218***	35.125***	29.032***	29.930***	36.612***	47.731***	45.873***	50.398***	48.084***	71.170***	100.713***	37.339***
	(3.18)	(5.70)	(4.13)	(3.06)	(2.86)	(3.18)	(3.97)	(3.57)	(3.75)	(3.60)	(5.03)	(6.62)	(11.13)
Year*husband													0.558***
													(16.35)

Note: All specifications include the same set of independent variables as regressions reported in Table 3. Robust t statistics in parentheses; * significant at 10%; ** significant at 5%; *** significant at 1%; All regressions include provincial dummies. All economic variables are derived using the 1988 price level.

Table A1: Descriptive Statistics of Variables

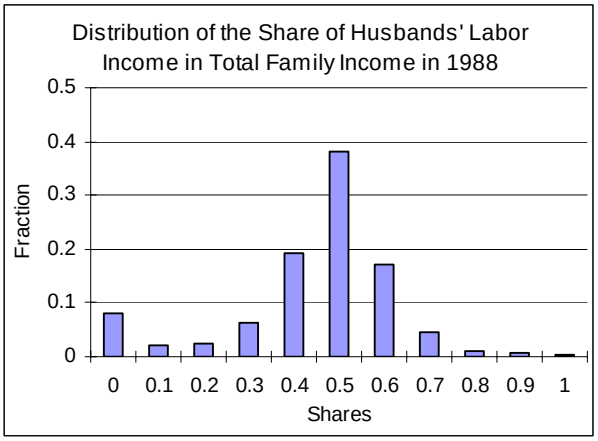
Variables	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)	Mean (sd)
Percentage of husbands' or wives' labor earnings in total family income	35.255 (17.23)	34.102 (17.32)	34.236 (17.55)	34.280 (17.78)	37.270 (19.37)	36.957 (20.44)	35.898 (21.68)	36.675 (21.69)	35.968 (22.12)	35.426 (22.24)	34.529 (23.08)	33.666 (23.98)
Age	39.6 (8.05)	40.0 (7.8)	40.7 (7.8)	39.9 (8.0)	40.4 (7.7)	40.7 (7.6)	40.6 (7.6)	40.8 (7.5)	41.2 (7.4)	41.2 (7.2)	41.3 (7.2)	41.5 (7.10
Years of education	10.4 (3.0)	10.6 (3.0)	10.7 (3.0)	10.7 (3.0)	11.1 (3.0)	11.2 (2.9)	11.4 (2.9)	11.5 (2.9)	11.5 (2.9)	11.4 (2.8)	11.6 (2.8)	11.7 (2.9)
Number of Children												
Preschool children	0.185 (0.39)	0.154 (0.37)	0.119 (0.33)	0.145 (0.36)	0.128 (0.34)	0.106 (0.31)	0.102 (0.31)	0.097 (0.30)	0.080 (0.27)	0.082 (0.28)	0.082 (0.28)	0.074 (0.26)
School-age children	0.393 (0.55)	0.379 (0.53)	0.368 (0.50)	0.340 (0.49)	0.331 (0.49)	0.328 (0.49)	0.300 (0.47)	0.277 (0.46)	0.252 (0.44)	0.241 (0.44)	0.222 (0.42)	0.208 (0.41)
Adolescent children	0.338 (0.61)	0.341 (0.59)	0.306 (0.55)	0.286 (0.54)	0.253 (0.50)	0.249 (0.48)	0.243 (0.46)	0.261 (0.46)	0.279 (0.46)	0.266 (0.45)	0.253 (0.44)	0.244 (0.43)
Adult children	0.397 (0.74)	0.429 (0.77)	0.450 (0.79)	0.407 (0.73)	0.421 (0.74)	0.423 (0.73)	0.403 (0.71)	0.404 (0.71)	0.399 (0.70)	0.416 (0.72)	0.417 (0.69)	0.416 (0.66)
Number of adult co-residents	0.031 (0.18)	0.025 (0.16)	0.028 (0.18)	0.032 (0.19)	0.030 (0.18)	0.028 (0.17)	0.025 (0.16)	0.029 (0.17)	0.065 (0.25)	0.032 (0.18)	0.037 (0.20)	0.031 (0.19)
Family non-labor income	1064.517 (1096.41)	1147.408 (1194.27)	1209.209 (1277.21)	1281.397 (1460.55)	1080.618 (1769.12)	1154.521 (1874.88)	1403.032 (2198.59)	1358.524 (2304.69)	1495.972 (2279.33)	1205.499 (2082.80)	1442.681 (2449.45)	1646.966 (2572.37)
No. of Observations	5006	4518	5220	5352	6448	5746	5626	5662	5546	5650	5482	5092

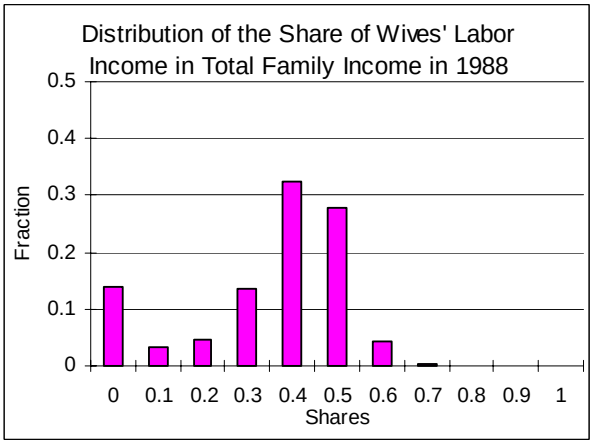
Table A2: Non-Labor Force Participation of Husbands and Wives by Categories in Urban China, 1988-1999

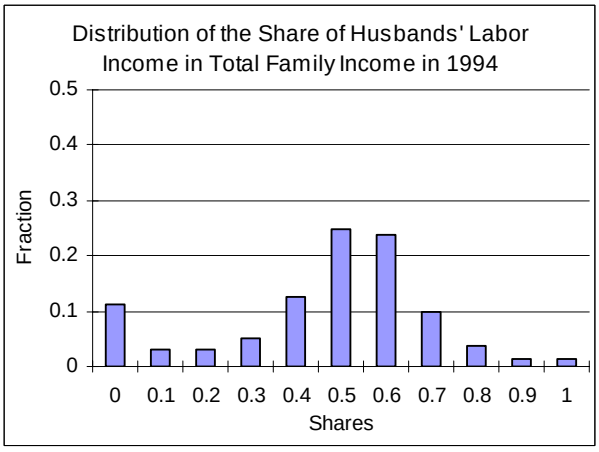
Husbands/year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Retirees	218*	225*	262*	254*	452	459	520	507	544	525	573	651
Disabled workers	-	-	-	-	0	0	0	0	0	1	1	2
Household workers	-	-	-	-	0	0	1	1	1	3	1	2
Students	-	-	-	-	0	0	0	1	1	0	1	0
Waiting for entry to higher education	-	-	-	-	0	0	0	0	0	0	0	0
Others	-	-	-	-	3	2	2	0	3	3	5	6
Non-labor force number	236	241	275	276	455	461	523	509	549	532	581	661
No. of Observations	2503	2259	2610	2676	3224	2873	2813	2831	2773	2825	2741	2546
Remarks:												
Unemployed	3	2	0	3	3	6	3	4	3	6	15	24
Wives/year	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999
Retirees	267*	292*	347*	360*	563	577	637	639	688	672	750	779
Disabled workers	-	-	-	-	6	7	6	7	3	9	9	2
Household workers	-	-	-	-	78	78	82	69	74	87	78	87
Students	-	-	-	-	1	0	0	0	0	0	0	0
Waiting for entry to higher education	-	-	-	-	0	0	0	2	1	0	0	0
Others	-	-	-	-	79	73	85	61	70	54	67	64
Non-labor force number	401	416	475	506	727	735	810	778	836	822	904	932
No. of Observations	2503	2259	2610	2676	3224	2873	2813	2831	2773	2825	2741	2546
Remarks:												
Unemployed	7	5	9	10	17	20	28	34	27	40	71	61

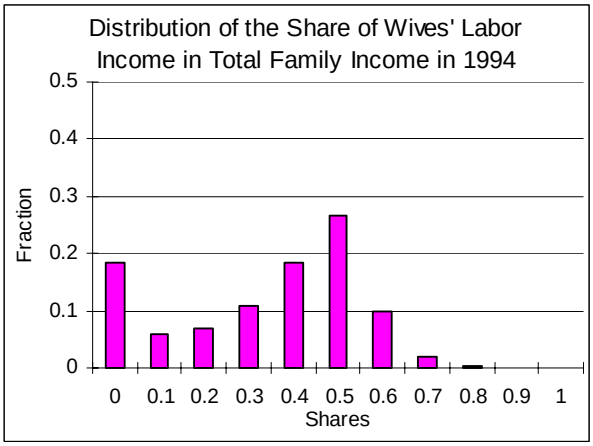
* Early surveys (1988-1991) do not report whether one is retired. Retirees in these years are classified as those with zero labor income and positive retirement income.

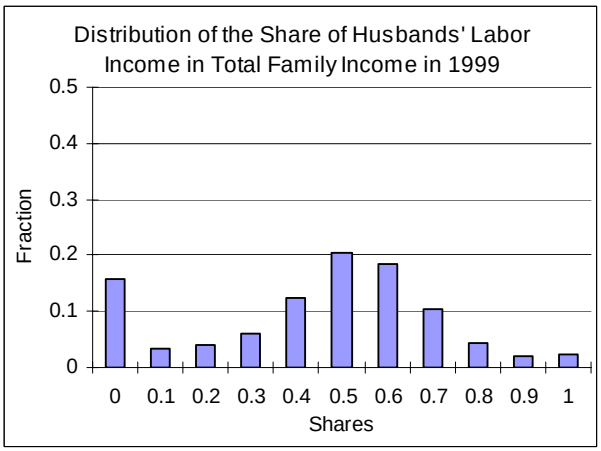
Figure 1: Distribution of the Share of Husband'/Wife's Labor Income in Total Family Income
in Urban China in 1988, 1994 and 1999

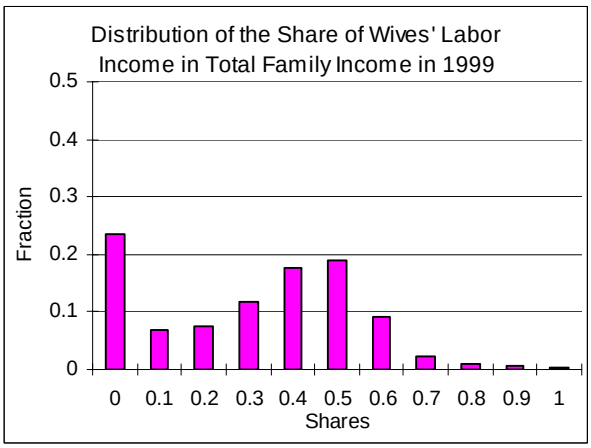







Distribution of the Share of Wives' Labor Income in Total Family Income in 1994
Fraction
0.5
0.4
0.3
0.2
0.1
0
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
Shares


Distribution of the Share of Husbands' Labor Income in Total Family Income in 1999
Fraction
0.5
0.4
0.3
0.2
0.1
0
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
Shares


Distribution of the Share of Wives' Labor Income in Total Family Income in 1999
Fraction
0.5
0.4
0.3
0.2
0.1
0
0 0.1 0.2 0.3 0.4 0.5 0.6 0.7 0.8 0.9 1
Shares